

reconfiguring said textures or pictures applied to said framework decides a new position of the corresponding point on said textures or pictures where an area change amount of said textures or pictures to be influenced by the approximation lies within a predetermined range.

~~411~~⁷⁷. (new) An apparatus for use with a display device that approximates an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said device comprising:

a memory unit for storing said image data; and

(F) a processor connected to said memory unit, wherein said processor is programmed to:

- (a) assign an importance value to each line segment of said framework;
- (b) remove from said framework that line segment having a lowest importance value; and
- (c) reconfigure said framework to account for said removal of said line segment having said lowest importance value.

~~412~~⁷⁸. (new) The apparatus of claim ~~411~~⁷⁷, further comprising an input device inputting said image data to said processor for storage in said memory unit.

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413. (new) The apparatus of claim 41⁷⁸2, wherein said input device comprises a floppy disk drive.

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414. (new) The apparatus of claim 41⁷⁸2, wherein said input device comprises a magneto-optical disk drive.

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415. (new) The apparatus of claim 41⁷⁷1, further comprising a user input device for inputting data to said processor.

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416. (new) The apparatus of claim 41⁸¹5, wherein said user input device comprises a keyboard.

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417. (new) The apparatus of claim 41⁷⁷1, wherein said processor is further programmed to reconfigure texture and pictures applied to said framework to account for removal of said line segment.

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418. (new) The apparatus of claim 41⁷⁷1, said processor, in performing said reconfiguration of said framework, is programmed to replace two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

419.⁸⁵ (new) The apparatus of claim 411,⁷⁷ wherein said image data defines a 3-dimensional polygonal framework.

420.⁸⁶ (new) The apparatus of claim 411,⁷⁷ said processor, in performing said assignment of importance values, is programmed to evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

421.⁸⁷ (new) The apparatus of claim 420,⁸⁸ said processor, in performing said assignment of importance values, is programmed to assign a line segment an importance value in direct proportion to the amount of volume change caused by removal of that line segment.

422.⁸⁸ (new) The apparatus of claim 411,⁷⁷ said processor, in performing said assignment of importance values, is programmed to use a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework, wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

423.⁸⁹ (new) The apparatus of claim 422,⁸⁸

wherein said processor assigns an importance value to each line segment by calculating an importance of a particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

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424. (new) The apparatus of claim 41⁷⁷, said processor, in performing said assignment of importance values, is programmed to determine an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

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425. (new) The apparatus of claim 42⁹⁰, wherein said processor assigns an importance value to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

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426. (new) The apparatus of claim 41⁷⁷, wherein said processor, in performing said assignment of importance values, assigns an importance value to each line segment based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

427.⁹³ (new) The apparatus of claim 41⁷⁷, wherein said processor assigns an importance value to each line segment by calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

428.⁹⁴ (new) The apparatus of claim 41⁷⁷, wherein said processor, in performing said assignment of importance values, is programmed to assign an importance value to each line segment based on a length of said line segments.

429.⁹⁵ (new) The apparatus of claim 41⁷⁷, wherein said processor assigns an importance value to each line segment in direct proportion to a length of that line segment.

430.⁹⁶ (new) The apparatus of claim 41⁷⁷, wherein if two or more line segments are assigned an identical degree of importance, said processor assigns a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

431.⁹⁷ (new) The apparatus of claim 41⁷⁷, wherein said processor is further programmed to repeat said assignment of an

importance value to each line segment; said removal of that line segment with the lowest importance value; and said reconfiguration said framework.

432.⁹⁸ (new) The apparatus of claim 41⁷⁷, wherein said processor is programmed to assign an importance value to each line segment based on an amount by which an amount of said image data is changed by removal of a particular line segment.


433.⁹⁹ (new) The apparatus of claim 41⁷⁷, wherein said processor is programmed to assign an importance value to each line segment based on importance values assigned by a user to one or more of said line segments.

434.¹⁰⁰ (new) The apparatus of claim 41⁷⁷, wherein said processor is programmed to reconfigure said framework by positioning a new vertex at a position such that a total loss of area between a framework including said line segment having said lowest importance value and a framework containing said new vertex and in which said lowest-importance-value line segment is removed is minimized.

435.¹⁰¹ (new) The apparatus of claim 41⁷⁷, wherein said processor is programmed to reconfigure said framework by positioning a new vertex at a position such that a loss of area

to said framework caused by removal of said lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said new vertex.

~~436~~. ¹⁰² (new) The apparatus of claim ~~411~~, ⁷⁷ wherein said processor is programmed to reconfigure said framework by positioning a vertex at a position corresponding to an end of said removed lowest-importance-value line segment.

 ~~437~~. ¹⁰³ (new) The apparatus of claim ~~411~~, ⁷⁷ wherein said processor is programmed to generate an intermediate configuration of said image data by decreasing a length of said lowest-importance-value line segment.

~~438~~. ¹⁰⁴ (new) The apparatus of claim ~~411~~, ⁷⁷ wherein said processor is programmed to reconfigure said framework by generating a new vertex to replace a previous vertex located at an end of said removed, lowest-importance-value line segment.

~~439~~. ¹⁰⁵ (new) A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said method comprising:

assigning an importance value to each line segment of said framework;

removing from said framework that line segment having a lowest importance value; and

reconfiguring said framework to account for said removal of said line segment having said lowest importance value.

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440. (new) The method of claim 439, ¹⁰⁵ wherein said reconfiguring further comprises replacing two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

107
441. (new) The method of claim 439, ¹⁰⁵ wherein said image data defines a 3-dimensional polygonal framework.

108
442. (new) The method of claim 439, ¹⁰⁵ wherein said assigning an importance value to each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

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443. (new) The method of claim 442, ¹⁰⁸ wherein said assigning an importance value to each line segment further comprises assigning a line segment an importance value in direct proportion

to the amount of volume change caused by removal of that line segment.

¹¹⁰
~~444~~. (new) The method of claim ~~439~~,¹⁰⁵ wherein said assigning an importance value to each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework, wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

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~~445~~. (new) The method of claim ~~444~~,¹¹⁰ wherein said assigning an importance value to each line segment further comprises calculating an importance of a particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

¹¹²
~~446~~. (new) The method of claim ~~439~~,¹⁰⁵ wherein said assigning an importance value to each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

¹¹³
~~447~~. (new) The method of claim ~~446~~,¹¹² wherein said assigning an importance value to each line segment further comprises assigning an importance value to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

¹¹⁴
~~448~~. (new) The method of claim ~~439~~,¹⁰⁵ wherein said assigning an importance value to each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

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¹¹⁵
~~449~~. (new) The method of claim ~~448~~,¹¹⁴ wherein said assigning an importance value to each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

¹¹⁶
~~450~~. (new) The method of claim ~~439~~,¹⁰⁵ wherein said assigning an importance value to each line segment is performed based on a length of said line segments.

¹¹⁷
~~451~~. (new) The method of claim ~~450~~,¹¹⁶ wherein said assigning an importance value to each of said line segments further

comprises assigning an importance value to each line segment in direct proportion to a length of that line segment.

¹¹⁸
452. (new) The method of claim ~~439~~¹⁰⁵, wherein if two or more line segments are assigned an identical degree of importance, said method further comprises assigning a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

¹¹⁹
453. (new) The method of claim ~~439~~¹⁰⁵, further comprising repeating said steps of assigning an importance value to each line segment; removing that line segment with the lowest importance value; and reconfiguring said framework.

¹²⁰
454. (new) The method of claim ~~439~~¹⁰⁵, wherein said assigning an importance value to each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

¹²¹
455. (new) The method of claim ~~439~~¹⁰⁵, wherein said assigning an importance value to each line segment is performed based on importance values assigned by a user to one or more of said line segments.

~~122~~
456. (new) The method of claim ~~455~~¹²¹, further comprising specifying one or more of said line segments as of high importance, wherein assigning an importance value to each line segment further comprises preventing said one or more high importance line segments from being removed.

~~123~~
457. (new) The method of claim ~~439~~¹⁰⁵, wherein said reconfiguring comprises positioning a new vertex at a position such that a total loss of area between a framework including said line segment having said lowest importance value and a framework comprising said new vertex and in which said lowest-importance-value line segment is removed is minimized.

~~124~~
458. (new) The method of claim ~~439~~¹⁰⁵, wherein said reconfiguring comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said vertex.

~~125~~
459. (new) The method of claim ~~439~~¹⁰⁵, wherein said reconfiguring comprises positioning a vertex at a position corresponding to an end of said removed lowest-importance-value line segment.

~~460~~¹²⁶. (new) The method of claim ~~439~~¹⁰⁵, further comprising, generating an intermediate configuration of said image data by decreasing a length of said lowest-importance-value line segment prior to said step of removing said lowest-importance-value line segment.

~~461~~¹²⁷. (new) The method of claim ~~439~~¹⁰⁵, further comprising, generating an intermediate polygonal framework between an original framework including said lowest-importance-value line segment and a new reconfigured framework with said lowest-importance-value line segment removed.

~~462~~¹²⁸. (new) The method of claim ~~461~~¹²⁷, wherein said generating an intermediate framework comprises locating a vertex at a position intermediate to a vertex position in said original framework and a new vertex position determined in said step of reconfiguring.

~~463~~¹²⁹. (new) The method of claim ~~462~~¹²⁸, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said new vertex position determined in said step of reconfiguring.

130
464. (new) The method of claim 439, ¹⁰⁵ further comprising reconfiguring a texture applied to said framework to account for said removing of said lowest-importance-value line segment.

131
465. (new) The method of claim 439, ¹⁰⁵ wherein said assigning an importance value to each line segment is done in accordance with an assigned importance value of line segments contiguous to a particular line segment being evaluated.

132
466. (new) The method of claim 439, ¹⁰⁵ wherein said reconfiguring comprises using a new vertex to replace a previous vertex located at an end of said removed, lowest-importance-value line segment.

133
467. (new) The method of claim 439, ¹⁰⁵ wherein said assigning an importance value to each line segment comprises deciding that the degree of importance of said line segment is small as said change amount of said volume is small.

134
468. (new) The method of claim 439, ¹⁰⁵ wherein said assigning an importance value to each line segment is performed on the basis of a vector which is representing said line segment, an area of a plane of said image data which is composed by at least one of said vertices of said line segment, and a normal vector at said plane.

¹³⁵
469. (new) The method of claim ¹⁰⁵439, wherein said assigning an importance value to each line segment is performed on the basis of a change amount of area of the image specified by said image data when said line segment is removed.

¹³⁶
470. (new) The method of claim ¹³⁵469, wherein said assigning an importance value to each line segment comprises deciding that the degree of importance of said line segment is small as said change amount of said area is small.

¹³⁷
471. (new) The method of claim ¹⁰⁵439, wherein said assigning an importance value to each line segment comprises deciding that the degree of importance of said line segment is small as said length of said line segment is short.

¹³⁸
472. (new) The method of claim ¹⁰⁵439, wherein when two or more edges are assigned an identical degree of importance, a shortest line segment of said line segments receiving an identical degree of importance is said unnecessary edge.

¹³⁹
473. (new) The method of claim ¹⁰⁵439, further comprising repeating the step of said evaluating a degree of importance of the line segment, the step of said removing said unnecessary line segment, and the step of said determining said position of said

vertex after said unnecessary line segment is removed.

¹⁴⁰
474. (new) The method of claim ~~439~~¹⁰⁵, wherein said evaluating a degree of said line segment is performed on the basis of a removal importance value of the line segment obtained from a change amount of said image data caused by the removing of said line segment and on the basis of an assigned importance value of the line segment assigned by a user.

¹⁴¹
475. (new) The method of claim ~~474~~¹⁴⁰, wherein said evaluating a degree of importance of the line segment decides that the degree of importance of said line segment is small, if said removal importance value and said assigned importance value are both small.

¹⁴²
476. (new) The method of claim ~~474~~¹⁴⁰, wherein said assigned importance value is a removing order of said line segments.

¹⁴³
477. (new) The method of claim ~~439~~¹⁰⁵, further comprising specifying at least one said line segment as of high importance, wherein said evaluating a degree of importance of said at least one line segment further comprises preventing said at least one high importance line segment from being designated as said unnecessary line segment.

¹⁴⁴478. (new) The method of claim ¹⁴³477, wherein said specifying the at least one line segment as of high importance is performed by a user.

¹⁴⁵479. (new) The method of claim ¹⁴³477, wherein said specifying the at least one line segment as of high importance specifies a portion where more than two image data are adjacent.

¹⁴⁶480. (new) The method of claim ¹⁰⁵479, wherein said vertex is decided at a position where a total loss of area between the original framework which is the framework before line segment removing and the reconfigured framework which is the framework after said line segment removing is minimized.

¹⁴⁷481. (new) The method of claim ¹⁴⁶480, wherein when the shape of the portion where said removal line segment is a concave or convex shape, said vertex is decided at a position where a total loss of area between said original framework and said reconfigured framework is minimized.

¹⁴⁸482. (new) The method of claim ¹⁰⁵479, wherein said vertex is decided at a position where a loss of area between the original framework which is the framework before line segment removing and the reconfigured framework which is the framework after line segment removing is equal on both sides of said vertex.

¹⁴⁹/₄₈₃. (new) The method of claim ¹⁴⁸/₄₈₂, wherein when the shape of the portion where said removal line segment is a S-character shape, said vertex is arranged at a position where a loss of area between said original framework and said reconfigured framework is equal on both sides of said vertex.

¹⁵⁰/₄₈₄. (new) The method of claim ¹⁰⁵/₄₃₉, wherein said determining a position of said vertex determines the vertex at a position of one of the vertices of the removal line segment.

¹⁵¹/₄₈₅. (new) The method of claim ¹⁰⁵/₄₃₉, further comprising, generating an intermediate configuration of said image data by decreasing a length of said unnecessary line segment.

¹⁵²/₄₈₆. (new) The method of claim ¹⁰⁵/₄₃₉, further comprising, generating an framework at intermediate layer between said original framework which is the framework before line segment removing and said reconfigured framework which is the framework after line segment removing by determining a position of vertices in the intermediate layer on the basis of the relation of vertices position between said original framework and said reconfigured framework.

¹⁵³/₄₈₇. (new) The method of claim ¹⁰⁵/₄₃₉, further comprising

reconfiguring a texture applied to said framework to account for said removing of said unnecessary line segment.

¹⁵⁴
~~488~~. (new) The method of claim ~~439~~¹⁰⁵, wherein said evaluation of degree of importance of the line segment is performed on the basis of an evaluation value of said line segment and evaluation values of peripheral line segments.

¹⁵⁵
~~489~~. (new) The method of claim ~~439~~¹⁰⁵, wherein said removing of unnecessary line segment removes either one of two vertices constructing the unnecessary line segment; and

f said determining of a position of vertex determines amount of shift the vertex which is constructing the unnecessary line segment and not removed on said removing of unnecessary line segment.

¹⁵⁶
~~490~~. (new) An apparatus for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said apparatus comprising:

a processing apparatus for:

evaluating a degree of importance of each line segment of said framework;

removing at least one unnecessary line segment from said framework which is identified based on said evaluation of said degree of importance of each line segment; and

determining a position of a vertex after said unnecessary line segment is removed.

~~491~~¹⁵⁷. (new) The apparatus of claim ~~490~~¹⁵⁶, wherein said image data defines a 3-dimensional polygonal framework.

~~492~~¹⁵⁸. (new) The apparatus of claim ~~490~~¹⁵⁶, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

~~493~~¹⁵⁹. (new) The apparatus of claim ~~492~~¹⁵⁸, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

~~494~~¹⁶⁰. (new) The apparatus of claim ~~490~~¹⁵⁶, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework

wherein said particular line segment is a side of said polygon,
and a vector (N) normal to a plane of said polygon.

~~495~~¹⁶¹. (new) The apparatus of claim ~~494~~¹⁶⁰,

wherein said evaluating a degree of importance of each line
segment further comprises calculating an importance of a
particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line
segment, A is said area of a polygon sided by said particular
line segment, and N is said normal vector.

f ~~496~~¹⁶². (new) The apparatus of claim ~~490~~¹⁵⁰, wherein said
evaluating a degree of importance of each line segment is
performed based on an amount by which an area of said polygonal
framework defined by said image data is changed by removal of a
particular line segment.

~~497~~¹⁶³. (new) The apparatus of claim ~~496~~¹⁶², wherein said
evaluating a degree of importance of each line segment further
comprises assigning a degree of importance to a particular line
segment in direct proportion to said amount by which said area of
said polygonal framework is changed by removal of that line
segment.

~~498~~¹⁶⁴. (new) The apparatus of claim ~~490~~¹⁵⁰, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

~~499~~¹⁶⁵. (new) The apparatus of claim ~~498~~¹⁶⁴, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

~~500~~¹⁶⁶. (new) The apparatus of claim ~~490~~¹⁵⁰, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

~~501~~¹⁶⁷. (new) The apparatus of claim ~~500~~¹⁶⁶, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

~~502~~¹⁶⁸. (new) The apparatus of claim ~~490~~¹⁵⁰, wherein if two or more line segments are assigned an identical degree of importance, said processing apparatus assigns a lowest degree of

importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

¹⁶⁹
~~503~~. (new) The apparatus of claim ~~490~~,^{153p} wherein said processing apparatus repeats said evaluating a degree of importance of each line segment; said removing an unnecessary line segment; and said determining a position of a vertex after said unnecessary line segment is removed.

¹⁷⁰
~~504~~. (new) The apparatus of claim ~~490~~,^{153p} wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

¹⁷¹
~~505~~. (new) The apparatus of claim ~~490~~,^{153p} wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

¹⁷²
~~506~~. (new) The apparatus of claim ~~505~~,¹⁷¹ said processing apparatus specifies one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

¹⁷³
507. (new) The apparatus of claim ~~480~~¹⁵⁴, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at said position such that a total loss of area between a framework including said unnecessary line segment and a framework in which said unnecessary line segment is removed is minimized.

¹⁷⁴
508. (new) The apparatus of claim ~~490~~¹⁵⁶, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

¹⁷⁵
509. (new) The apparatus of claim ~~490~~¹⁵⁶, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at a position corresponding to an end of said removed unnecessary line segment.

¹⁷⁶
510. (new) The apparatus of claim ~~490~~¹⁵⁶, said processing apparatus generates an intermediate configuration of said image data by decreasing a length of said unnecessary line segment prior to said step of removing said unnecessary line segment.

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511. (new) The apparatus of claim ~~490~~¹⁵⁴, said processing apparatus generates an intermediate polygonal framework between an original framework including said unnecessary line segment and a new framework with said unnecessary line segment removed.

¹⁷⁸
512. (new) The apparatus of claim ~~511~~¹⁷⁷, wherein said generating an intermediate framework comprises locating a vertex at a position intermediate to a vertex position in said original framework and a vertex position determined in said step of determining a position of a vertex after said unnecessary line segment is removed.

¹⁷⁹
513. (new) The apparatus of claim ~~512~~¹⁷⁸, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

¹⁸⁰
514. (new) The apparatus of claim ~~490~~¹⁵⁴, said processing apparatus reconfigures a texture applied to said framework to account for said removing of said unnecessary line segment.

¹⁸¹515. (new) The apparatus of claim ~~490~~¹⁵⁴, wherein said evaluation of a degree of importance of each line segment is based in part on an evaluation of the degree of importance of line segments contiguous to a particular line segment being evaluated.

¹⁸²516. (new) The apparatus of claim ~~490~~¹⁵⁴, said processing apparatus reconfigures said framework after said unnecessary line segment has been removed by placing a new vertex at said position identified in said step of determining a position of a vertex.

¹⁸³517. (new) The apparatus of claim ~~516~~¹⁸², wherein said reconfiguring comprises using said new vertex to replace a previous vertex located at an end of said unnecessary, removed line segment.

¹⁸⁴518. An apparatus for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework formed of polygons to which textures or pictures are applied, said polygons of said framework being composed of line segments connected between vertices, said apparatus comprising:

a processing apparatus for:

evaluating a degree of importance of each line segment of said framework;

removing an unnecessary line segment identified by said step of evaluating a degree of importance of each line segment;

reconfiguring said framework to account for said removal of said line segment; and

reconfiguring said textures or pictures applied to said framework to account for said removal of said line segment.

¹⁸⁵
519. (new) The apparatus of claim ¹⁸⁴518, wherein said reconfiguring the textures or pictures applied to the framework is preformed altering an association between a vertex of said unnecessary line segment and any of said textures or pictures.

61 ¹⁹⁰
520. (new) The apparatus of claim ¹⁸⁴518, wherein:
said reconfiguring of said framework comprises replacing two vertices of said framework, between which said unnecessary, removed line segment had been connected, with a single new vertex; and

said reconfiguring the textures or pictures applied to the framework comprises determining a new position on said textures or pictures corresponding to a position of said single new vertex in said framework.

⁷⁶
521. (new) The apparatus of claim ⁵⁴78, wherein said reconfiguring of said textures or pictures applied to the framework comprises determining said new position by

interpolation between two points on the textures or pictures which correspond to the unnecessary line segment.

¹⁸⁷ 522. (new) The apparatus of claim ¹⁸⁸ 520, wherein said interpolation is a linear interpolation.

¹⁸⁸ 523. (new) The apparatus of claim ¹⁸⁹ 518, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment existing on an outline of any of said textures or pictures from being designated as said unnecessary line segment.

¹⁸⁹ 524. (new) The apparatus of claim ¹⁹⁰ 518, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment, which exists on an outline of any of said textures or pictures from being designated as said unnecessary line segment if a change in an area of said texture or picture resulting from removal of that line segment exceeds a predetermined value.

¹⁹⁰ 525. (new) The apparatus of claim ¹⁹¹ 524, wherein said area change amount after the line segment removal is obtained on the basis of a calculation of sum of results of an equation $|(N \cdot E) \times L|$ at line segments corresponding to the boundary lines of the texture or picture existing before and after the line segment to

be removed, wherein "E" is representing that line segment, "L" is a length of line segment corresponding to the boundary lines of the texture or picture, "N" is a normal vector of said line segments, " \cdot " is a inner product, and " \times " is a product.

~~526~~¹⁹¹. (new) The apparatus of claim ~~518~~¹⁸⁴, wherein said image data defines a 3-dimensional polygonal framework.

~~527~~¹⁹². (new) The apparatus of claim ~~518~~¹⁸⁴, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

~~528~~¹⁹³. (new) The apparatus of claim ~~527~~¹⁹², wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

~~529~~¹⁹⁴. (new) The apparatus of claim ~~518~~¹⁸⁴, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework

wherein said particular line segment is a side of said polygon,
and a vector (N) normal to a plane of said polygon.

¹⁹⁵
530. (new) The apparatus of claim 529, ¹⁹⁴

wherein said evaluating a degree of importance of each line
segment further comprises calculating an importance of a
particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line
segment, A is said area of a polygon sided by said particular
line segment, and N is said normal vector.

¹⁹⁶
531. (new) The apparatus of claim 518, ¹⁸¹ wherein said
evaluating a degree of importance of each line segment is
performed based on an amount by which an area of said polygonal
framework defined by said image data is changed by removal of a
particular line segment.

¹⁹⁷
532. (new) The apparatus of claim 531, ¹⁹⁶ wherein said
evaluating a degree of importance of each line segment further
comprises assigning a degree of importance to a particular line
segment in direct proportion to said amount by which said area of
said polygonal framework is changed by removal of that line
segment.

¹⁹⁸
533. (new) The apparatus of claim ¹⁸⁴518, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

¹⁹⁹
534. (new) The apparatus of claim ¹⁹⁸533, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

f. ²⁰⁰
535. (new) The apparatus of claim ¹⁸⁴518, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

²⁰¹
536. (new) The apparatus of claim ²⁰⁰535, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

²⁰²
537. (new) The apparatus of claim ¹⁸⁴518, wherein if two or more line segments are assigned an identical degree of importance, said processing apparatus assigns a lowest degree of

importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

²⁰³
538. (new) The apparatus of claim ¹⁸⁴518, said processing apparatus repeats said steps of evaluating a degree of importance of each line segment; removing an unnecessary line segment; reconfiguring said framework; and reconfiguring said textures or pictures.

²⁰⁴
539. (new) The apparatus of claim ¹⁸⁵518, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

²⁰⁵
540. (new) The apparatus of claim ¹⁸⁴518, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

²⁰⁰
541. (new) The apparatus of claim ²⁰⁵540, said processing apparatus specifies one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

207/ 542. (new) The apparatus of claim 518, 184 wherein said reconfiguring said framework comprises positioning a vertex at a position such that a total loss of area between a framework including said unnecessary line and a framework in which said unnecessary line segment is removed is minimized.

208/ 543. (new) The apparatus of claim 518, 184 wherein said reconfiguring said framework comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

209/ 544. (new) The apparatus of claim 518, 184 wherein said reconfiguring said framework comprises positioning a new vertex at a position corresponding to an end of said removed unnecessary line segment.

210/ 545. (new) The apparatus of claim 518, 184 said processing apparatus generates an intermediate configuration of said image data by decreasing a length of said unnecessary line segment prior to said step of removing said unnecessary line segment.

211/ 546. (new) The apparatus of claim 518, 184 said processing apparatus generates an intermediate polygonal framework between

an original framework including said unnecessary line segment and a new framework with said unnecessary line segment removed.

²¹³
547. (new) The apparatus of claim ²¹¹546, wherein said generating an intermediate framework comprises locating a vertex at a position intermediate to a vertex position in said original framework and a vertex position determined in said step of determining a position of a vertex after said unnecessary line segment is removed.

²¹³
548. (new) The apparatus of claim ²¹²547, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

²¹⁴
549. (new) The apparatus of claim ¹⁸⁴548, wherein said evaluating a degree of importance of each line segment is based in part on an evaluation of a degree of importance of line segments contiguous to a particular line segment being evaluated.

²¹⁵
550. (new) The apparatus of claim ¹⁸⁴548, wherein said reconfiguring said framework comprises using a new vertex to

replace a previous vertex located at an end of said unnecessary,
removed line segment.

~~551~~²¹⁶. (new) A medium for storing image data for approximating
an image by decreasing an amount of said image data used to
create the image, wherein said image data defines a polygonal
framework, said framework being composed of line segments drawn
between vertices, said medium comprising:

a memory unit for storing said image data, wherein said
image data stored onto said memory unit are generated by:

evaluating a degree of importance of each line segment
of said framework;

removing at least one unnecessary line segment from
said framework which is identified based on said evaluation of
said degree of importance of each line segment; and

determining a position of a vertex after said
unnecessary line segment is removed.

~~552~~²¹⁷. (new) The medium of claim ~~551~~²¹⁶, wherein said image data
defines a 3-dimensional polygonal framework.

~~553~~²¹⁸. (new) The medium of claim ~~551~~²¹⁶, wherein said evaluating
a degree of importance of each line segment is performed by
evaluating an amount by which a volume of the polygonal framework

defined by the image data is changed by removal of a particular line segment.

²¹⁹ 554. (new) The medium of claim ²¹⁸ 553, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

²²⁰ 555. (new) The medium of claim ²¹⁶ 551, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

²²¹ 556. (new) The medium of claim ²²⁰ 555, wherein said evaluating a degree of importance of each line segment further comprises calculating an importance of a particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

²²²
557. (new) The medium of claim ~~551~~²¹⁶, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

²²³
558. (new) The medium of claim ~~557~~²²², wherein said evaluating a degree of importance of each line segment further comprises assigning a degree of importance to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

²²⁴
559. (new) The medium of claim ~~551~~²¹⁶, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

²²⁵
560. (new) The medium of claim ~~559~~²²⁴, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

224/ 561. (new) The medium of claim 551, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments. 216

227/ 562. (new) The medium of claim 561, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment. 226

228/ 563. (new) The medium of claim 551, wherein if two or more line segments are assigned an identical degree of importance, a lowest degree of importance among said two or more line segments is assigned to that line segment of said two or more line segments with a shortest length. 216

229/ 564. (new) The medium of claim 551, further comprising repeating said evaluating a degree of importance of each line segment; said removing an unnecessary line segment; and said determining a position of a vertex after said unnecessary line segment is removed. 216

230/ 565. (new) The medium of claim 551, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment. 216

²³¹
566. (new) The medium of claim ²¹⁶551, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

²³²
567. (new) The medium of claim ²³¹566, further comprising specifying one or more of said line segments as of high importance, wherein said evaluating a degree of importance of each line segment further comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

²³³
568. (new) The medium of claim ²¹⁶551, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at said position such that a total loss of area between a framework including said unnecessary line segment and a framework in which said unnecessary line segment is removed is minimized.

²³⁴
569. (new) The medium of claim ²¹⁶551, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said

unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

²³⁵ 570. (new) The medium of claim ²¹⁶ 551, wherein said determining a position of a vertex after said unnecessary line segment is removed comprises positioning said vertex at a position corresponding to an end of said removed unnecessary line segment.

²³⁶ 571. (new) The medium of claim ²¹⁶ 551, wherein an intermediate configuration of said image data is generated by decreasing a length of said unnecessary line segment prior to said removing said unnecessary line segment.

²³⁷ 572. (new) The medium of claim ²¹⁶ 551, wherein an intermediate polygonal framework is generated between an original framework including said unnecessary line segment and a new framework with said unnecessary line segment removed.

²³⁸ 573. (new) The medium of claim ²³⁷ 572, wherein said generating an intermediate framework comprises locating a vertex an a position intermediate to a vertex position in said original framework and a vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

²³⁹
574. (new) The medium of claim ²³⁸573, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

²⁴⁰
575. (new) The medium of claim ²⁴⁰571, further comprising reconfiguring a texture applied to said framework to account for said removing of said unnecessary line segment.

²⁴¹
576. (new) The medium of claim ²⁴⁰571, wherein said evaluation of a degree of importance of each line segment is based in part on an evaluation of the degree of importance of line segments contiguous to a particular line segment being evaluated.

²⁴²
577. (new) The medium of claim ²⁴⁰571, further comprising reconfiguring said framework after said unnecessary line segment has been removed by placing a new vertex at said position identified in said determining a position of a vertex.

²⁴³
578. (new) The medium of claim ²⁴²577, wherein said reconfiguring comprises using said new vertex to replace a previous vertex located at an end of said unnecessary, removed line segment.

~~579~~²⁴⁴. (new) A medium for storing image data for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said medium comprising:

a memory unit for storing said image data, wherein said image data stored onto said memory unit are generated by:

assigning an importance value to each line segment of said framework;

removing from said framework that line segment having a lowest importance value; and

reconfiguring said framework to account for said removal of said line segment having said lowest importance value.

f. ~~580~~²⁴⁵. (new) The medium of claim ~~579~~²⁴⁴, wherein said reconfiguring further comprises replacing two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

~~581~~²⁴⁶. (new) The medium of claim ~~579~~²⁴⁴, wherein said image data defines a 3-dimensional polygonal framework.

~~582~~²⁴⁷. (new) The medium of claim ~~579~~²⁴⁴, wherein said assigning an importance value to each line segment is performed by

evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

²⁴⁸
583. (new) The medium of claim ²⁴⁷582, wherein said assigning an importance value to each line segment further comprises assigning a line segment an importance value in direct proportion to the amount of volume change caused by removal of that line segment.

²⁴⁹
584. (new) The medium of claim ²⁴⁴579, wherein said assigning an importance value to each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework, wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

²⁵⁰
585. (new) The medium of claim ²⁴⁹584, wherein said assigning an importance value to each line segment further comprises calculating an importance of a particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

^{251/}586. (new) The medium of claim ^{244/}579, wherein said assigning an importance value to each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

^{252/}587. (new) The medium of claim ^{251/}586, wherein said assigning an importance value to each line segment further comprises assigning an importance value to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

^{253/}588. (new) The medium of claim ^{244/}579, wherein said assigning an importance value to each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

^{254/}589. (new) The medium of claim ^{252/}588, wherein said assigning an importance value to each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

²⁵⁵590. (new) The medium of claim ²⁴⁴579, wherein said assigning an importance value to each line segment is performed based on a length of said line segments.

²⁵⁶591. (new) The medium of claim ²³⁵590, wherein said assigning an importance value to each of said line segments further comprises assigning an importance value to each line segment in direct proportion to a length of that line segment.

²⁵⁷592. (new) The medium of claim ²⁴⁴579, wherein if two or more line segments are assigned an identical degree of importance, a lowest degree of importance is assigned among said two or more line segments to that line segment of said two or more line segments with a shortest length.

²⁵⁸593. (new) The medium of claim ²⁴⁴579, further comprising repeating said steps of assigning an importance value to each line segment; removing that line segment with the lowest importance value; and reconfiguring said framework.

²⁵⁹594. (new) The medium of claim ²⁴⁴579, wherein said assigning an importance value to each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

595. ²⁶⁰ (new) The medium of claim ²⁴⁴ 579, wherein said assigning an importance value to each line segment is performed based on importance values assigned by a user to one or more of said line segments.

596. ²⁶⁰ (new) The medium of claim ²⁶⁰ 595, further comprising specifying one or more of said line segments as of high importance, wherein assigning an importance value to each line segment further comprises preventing said one or more high importance line segments from being removed.

597. ²⁶² (new) The medium of claim ²⁴⁴ 579, wherein said reconfiguring comprises positioning a new vertex at a position such that a total loss of area between a framework including said line segment having said lowest importance value and a framework comprising said new vertex and in which said lowest-importance-value line segment is removed is minimized.

598. ²⁶³ (new) The medium of claim ²⁴⁴ 579, wherein said reconfiguring comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said vertex.

264/ 599. (new) The medium of claim 579, ²⁴⁴ wherein said reconfiguring comprises positioning a vertex at a position corresponding to an end of said removed lowest-importance-value line segment.

265/ 600. (new) The medium of claim 579, ²⁴⁴ wherein an intermediate configuration of said image data is generated by decreasing a length of said lowest-importance-value line segment prior to said removing said lowest-importance-value line segment.

266/ 601. (new) The medium of claim 579, ²⁴⁴ wherein an intermediate polygonal framework is generated between an original framework including said lowest-importance-value line segment and a new reconfigured framework with said lowest-importance-value line segment removed.

267/ 602. (new) The medium of claim 601, ²⁶⁶ wherein said generating an intermediate framework comprises locating a vertex at a position intermediate to a vertex position in said original framework and a new vertex position determined in said reconfiguring.

268/ 603. (new) The medium of claim 602, ²⁶⁷ wherein said locating a vertex at an intermediate position comprises using a linear

interpolation on said vertex position in said original framework and said new vertex position determined in said reconfiguring.

²⁶⁹
604. (new) The medium of claim ²⁴⁴579, wherein a texture applied to said framework is reconfigured to account for said removing of said lowest-importance-value line segment.

²⁷⁰
605. (new) The medium of claim ²⁴⁴579, wherein said assigning an importance value to each line segment is done in accordance with an assigned importance value of line segments contiguous to a particular line segment being evaluated.

²⁷¹
606. (new) The medium of claim ²⁴⁴579, wherein said reconfiguring comprises using a new vertex to replace a previous vertex located at an end of said removed, lowest-importance-value line segment.

²⁷²
607. (new) A medium for storing image data for approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework formed of polygons to which textures or pictures are applied, said polygons of said framework being composed of line segments connected between vertices, said medium comprising:

a memory unit for storing said image data, wherein said image data stored onto said memory unit are generated by:

evaluating a degree of importance of each line segment of said framework;

removing an unnecessary line segment identified by said evaluating a degree of importance of each line segment;

reconfiguring said framework to account for said removal of said line segment; and

reconfiguring said textures or pictures applied to said framework to account for said removal of said line segment.

608. (new) The medium of claim 607, wherein said reconfiguring the textures or pictures applied to the framework is preformed altering an association between a vertex of said unnecessary line segment and any of said textures or pictures.

609. (new) The medium of claim 607, wherein:

said reconfiguring of said framework comprises replacing two vertices of said framework, between which said unnecessary, removed line segment had been connected, with a single new vertex; and

said reconfiguring the textures or pictures applied to the framework comprises determining a new position on said textures or pictures corresponding to a position of said single new vertex in said framework.

610. (new) The medium of claim 609, wherein said reconfiguring of said textures or pictures applied to the framework comprises determining said new position by interpolation between two points on the textures or pictures which correspond to the unnecessary line segment.

611. (new) The medium of claim 610, wherein said interpolation is a linear interpolation.

612. (new) The medium of claim 607, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment existing on an outline of any of said textures or pictures from being designated as said unnecessary line segment.

613. (new) The medium of claim 607, wherein said evaluating a degree of importance of each line segment of said framework further comprises preventing any line segment, which exists on an outline of any of said textures or pictures from being designated as said unnecessary line segment if a change in an area of said texture or picture resulting from removal of that line segment exceeds a predetermined value.

614. (new) The medium of claim 613, wherein said area change amount after the line segment removal is obtained on the basis of

a calculation of sum of results of an equation $|(N \bullet E) \times L|$ at line segments corresponding to the boundary lines of the texture or picture existing before and after the line segment to be removed, wherein "E" is representing that line segment, "L" is a length of line segment corresponding to the boundary lines of the texture or picture, "N" is a normal vector of said line segments, " \bullet " is a inner product, and " \times " is a product.

²⁸⁰
615. (new) The medium of claim 607, wherein said image data defines a 3-dimensional polygonal framework.

²⁸¹
616. (new) The medium of claim 607, wherein said evaluating a degree of importance of each line segment is performed by evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

²⁸²
617. (new) The medium of claim 616, wherein said evaluating a degree of importance of each line segment further comprises assigning a line segment a degree of importance in direct proportion to the amount of volume change caused by removal of that line segment.

^{283/}618. (new) The medium of claim ²⁷²607, wherein said evaluating a degree of importance of each line segment is performed using a vector (E) which represents a particular line segment, an area (A) of a polygon within said polygonal framework wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

^{284/}619. (new) The medium of claim ²⁸³618, wherein said evaluating a degree of importance of each line segment further comprises calculating an importance of a particular line segment by $(N \cdot E) \times A$,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

^{285/}620. (new) The medium of claim ²⁷²607, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

^{286/}621. (new) The medium of claim ²⁸⁵620, wherein said evaluating a degree of importance of each line segment further comprises assigning a degree of importance to a particular line segment in

direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

²⁸⁷ 622. (new) The medium of claim ²⁸⁷ 607, wherein said evaluating a degree of importance of each line segment is performed based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

²⁸⁸ 623. (new) The medium of claim ²⁸⁷ 622, wherein said evaluating a degree of importance of each line segment further comprises calculating a sum of results of an equation $|E| \times A$ for polygons sided by said particular line segment, wherein " $|E|$ " is length of that line segment, "A" is an area of a polygon sided by said particular line segment.

²⁸⁹ 624. (new) The medium of claim ²⁸⁷ 607, wherein said evaluating a degree of importance of each line segment is performed based on a length of said line segments.

²⁹⁰ 625. (new) The medium of claim ²⁸⁹ 624, wherein said evaluating a degree of importance of said line segments further comprises assigning a degree of importance to each line segment in direct proportion to a length of that line segment.

291/626. (new) The medium of claim 607/272, wherein if two or more line segments are assigned an identical degree of importance, a lowest degree of importance is assigned among said two or more line segments to that line segment of said two or more line segments with a shortest length.

292/627. (new) The medium of claim 607/272, further comprising repeating said steps of evaluating a degree of importance of each line segment; removing an unnecessary line segment; reconfiguring said framework; and reconfiguring said textures or pictures.

293/628. (new) The medium of claim 607/272, wherein said evaluating a degree of importance of each line segment is performed based on an amount by which an amount of said image data is changed by removal of a particular line segment.

294/629. (new) The medium of claim 607/272, wherein said evaluating a degree of importance of each line segment is performed based on importance values assigned by a user to one or more of said line segments.

295/630. (new) The medium of claim 629/294, one or more of said line segments is specified as of high importance, wherein said evaluating a degree of importance of each line segment further

comprises preventing said one or more high importance line segments from being designated as said unnecessary line segment.

286
631. (new) The medium of claim 607, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a total loss of area between a framework including said unnecessary line and a framework in which said unnecessary line segment is removed is minimized.

297
632. (new) The medium of claim 607, wherein said reconfiguring said framework comprises positioning a vertex at a position such that a loss of area to said framework caused by removal of said unnecessary line segment is approximately equal for portions of said framework on opposite sides of said vertex.

298
633. (new) The medium of claim 607, wherein said reconfiguring said framework comprises positioning a new vertex at a position corresponding to an end of said removed unnecessary line segment.

299
634. (new) The medium of claim 607, wherein an intermediate configuration of said image data is generated by decreasing a length of said unnecessary line segment prior to said removing said unnecessary line segment.

³⁰⁰ 635. (new) The medium of claim ~~607~~²⁷², wherein an intermediate polygonal framework between an original framework is generated to include said unnecessary line segment and a new framework with said unnecessary line segment removed.

³⁰¹ 636. (new) The medium of claim ~~635~~³⁰⁰, wherein said generating an intermediate framework comprises locating a vertex at a position intermediate to a vertex position in said original framework and a vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

³⁰² 637. (new) The medium of claim ~~636~~³⁰¹, wherein said locating a vertex at an intermediate position comprises using a linear interpolation on said vertex position in said original framework and said vertex position determined in said determining a position of a vertex after said unnecessary line segment is removed.

³⁰³ 638. (new) The medium of claim ~~607~~²⁷², wherein said evaluating a degree of importance of each line segment is based in part on an evaluation of a degree of importance of line segments contiguous to a particular line segment being evaluated.